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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/602,681

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Masahiko Maruhashi

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EXAMINER

HSIEH, SHIH YUNG

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,681	Applicant(s) MARUHASHI ET AL.	
	Examiner Shih-yung Hsieh	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-18, 20 and 22-40 is/are rejected.
- 7) ☒ Claim(s) 7-9, 19 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 10-13, 17-18, 20, 22-23, 25-30, and 37-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Suenaga (6,525,249).

Regarding claim 1, Suenaga discloses a percussion pad comprising a surface (11), an accumulator (22) made of resilient material (col. 4, lines 42-43), connected in series to said surface (Fig. 4) so as to be locally deformed at each beat, a base (21) made of a material smaller in resiliency than said accumulator (col. 4, line 38), provided on the opposite side of said accumulator from said surface and held in contact with said accumulator (Fig. 4).

Regarding claim 2, Suenaga discloses the claimed invention (Fig. 4).

Regarding claim 10, Suenaga discloses an accumulator formed by an array of pillars (43) projecting from a solid portion (42) made of resilient material and the surface (11) at the tips of said pillars form in combination said surface to be beaten by said player (Fig. 5).

Regarding claims 11-13, and 17, Suenaga discloses the claimed invention. See above.

Regarding claim 18, Suenaga discloses tessing (53) he claimed invention. The claimed another array can be interpreted as portion of the array shown in Figs. 2 and 5 since the claims is silent about the difference about the array of pillars.

Regarding claims 20 and 28, Suenaga discloses the features as addressed in claim 1, including a supporting structure (10) for keeping said percussion pad in an attitude convenient to be beaten by said player; and a coupling device (12) connected between said percussion pad and said supporting structure (Fig. 4).

Regarding claim 22, Suenaga discloses a plurality of supporter brackets (20).

Regarding claim 23, Suenaga discloses a supporter and cushion blocks (50).

Regarding claim 25, Suenaga discloses the claimed invention (Figs. 3 and 4).

Regarding claims 26-27, and 29-30, Suenaga discloses the claimed invention (the sensors 51 and 52).

Regarding claim 37, Suenaga discloses the features as addressed in claims 1, 20, and 28, sensors addressed in claims 26-27, and 29-30, including an electronic sound generator (54) connected to said at least one vibratory sensor, carrying out a data processing (53) on pieces of data information on said electric signal for producing an audio signal (58) and converting said audio signal to an electronic percussion sound (Fig. 6).

Regarding claims 38-40, see above statement addressing claims 26-27, and 29-30.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenaga in view of Duncan et al. (4,852,443).

Regarding claim 3, Suenaga discloses the claimed invention except that said accumulator is formed by an array of pillars projecting from said reverse surface of said solid portion toward said base.

Duncan et al. teach an accumulator (1) formed by an array of pillars (1') projecting from a reverse surface of said solid portion (Fig. 1 shows a solid portion under cover C) toward a base (3 can be interpreted as a base) for providing responsive to touch and variable forces applied over a two-dimensional surface. It would have been obvious to one having ordinary skill in the art to modify Suenaga's pad as taught by Duncan et al. to include said accumulator formed by an array of pillars projecting from said reverse surface of said solid portion toward said base for the purpose of providing responsive to touch and variable forces applied over a two-dimensional surface.

Regarding claims 4-6, Suenaga discloses the claimed invention (Fig. 5, and col. 4, lines 42-43).

5. Claims 14-16, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenaga in view of Belli et al. (4,589,323).

Regarding claims 14-15, and 24, Suenaga discloses the claimed invention except that a supporter formed by a protection sheet covering a reverse surface of said base reverse to an obverse surface held in contact with said accumulator and secured to said accumulator.

Belli et al. teach a supporter (13 in Fig. 3) formed by a protection sheet (col. 2, line 40) covering a reverse surface of a base (15) reverse to an obverse surface held in contact with an accumulator (14) and secured to said accumulator (Fig. 2) for supporting the base (col. 2, lines 42-46). It would have been obvious to one having ordinary skill in the art to modify Suenaga's pad as taught by Belli et al. to include a supporter formed by a protection sheet covering a reverse surface of said base reverse to an obverse surface held in contact with said accumulator and secured to said accumulator for the purpose of supporting the base.

Regarding claim 16, Suenaga discloses the claimed invention except that said protection sheet is formed with an air-vent allowing air to pass through when said accumulator is deformed.

Belli et al. teach a protection sheet formed with an air-vent (50) allowing air to pass through when said accumulator is deformed for producing different sound modifications. It would have been obvious to one having ordinary skill in the art to modify Suenaga's pad as taught by Belli et al. to include said protection sheet being

formed with an air-vent allowing air to pass through when said accumulator is deformed for the purpose of producing different sound modifications.

6. Claims 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenaga in view of Klynas (4,479,412).

Regarding claims 31-36, Suenaga discloses the claimed invention except to apply the invention to a plurality of drums or a drum set.

Klynas teaches a plurality of electronic drums (40-16) having the same features for synthesizing the sounds of percussion instruments (col. 1, lines 10-13). It would have been obvious to one having ordinary skill in the art to modify Suenaga's instrument as taught by Klynas to include the application of the invention to a plurality of drums or a drum set for the purpose of synthesizing the sounds of percussion instruments.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include applying the features to a plurality of drums or a drum set, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *Regis Paper Co. v. Remis Co.*, 193 USPQ 8.

7. Claims 7-9, 19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


8. The claims are allowable over the prior art for at least the reason that the prior art fails to reasonably teach or suggest in claim 7 that said array of pillars has large sized pillars and small size pillars, in claim 8 that said array contains the pillars arranged at a high density and other pillars arranged at a low density, in claim 9 that a cushion layer made of said resilient material and having an obverse surface bonded to said accumulator and a reverse surface bonded to said base, in claim 19 that another base smaller in resiliency than said array of pillars and provided between said array of pillars and said solid portion, and in claim 21 that said percussion pad further includes a rigid portion coupled to said supporting structure, and a resilient portion provided between said solid portion and said rigid portion as set forth in the claimed combination.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-yung Hsieh whose telephone number is 571-272-2065. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

syh



SHIH-YUNG HSIEH
PRIMARY EXAMINER